C/007/022 Incoming

#4151

K

SAVAGE
Savage Services Corporation
Coal & Power Services Group
2025 East 5000 South
Box 1001
Price, UT 84501

(435) 637-5664
Fax (435) 637-3418

Mr. Steve Christensen
Permit Supervisor
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Attn: April Abate

Re: Addition of Ground Water
Monitoring Well S-3-GW
Savage Service Corporation
Savage Coal Terminal
C/007/0022

Dear Mr. Christensen:

Enclosed are 4 copies of an amendment to the Savage Coal Terminal MRP. This amendment is to show the addition of a new ground water monitoring well S-3-GW. Two holes were drilled in June 2012, with the intent of at least one replacing the dry well S-1-GW. Both new holes were also dry; however, it was decided to develop the second hole as a monitoring well in the event it may show ground water in the future.

An updated Plate 7-1 showing the location of the new well is enclosed, along with required C1/C2 Forms. If you have any questions, or need additional information, please let me know.

Sincerely,

Garth Nielsen
General Manager

Cc: Dan Guy
File

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JUL 16 2012
DIV. OF OIL, GAS & MINING

APPLICATION FOR COAL PERMIT PROCESSING

Permit Change ☒ New Permit ☐ Renewal ☐ Exploration ☐ Bond Release ☐ Transfer ☐

Permittee: Savage Services Corporation
Mine: Savage Coal Terminal **Permit Number:** C/007/0022
Title: Addition of Ground Water Monitoring Well

Description, Include reason for application and timing required to implement:
Addition of a ground water monitoring well.

Instructions: If you answer yes to any of the first eight questions, this application may require Public Notice publication.

☐ Yes ☒ No 1. Change in the size of the Permit Area? Acres: _____ Disturbed Area: _____ ☐ increase ☐ decrease.
☐ Yes ☒ No 2. Is the application submitted as a result of a Division Order? DO# _____
☐ Yes ☒ No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
☐ Yes ☒ No 4. Does the application include operations in hydrologic basins other than as currently approved?
☐ Yes ☒ No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
☐ Yes ☒ No 6. Does the application require or include public notice publication?
☐ Yes ☒ No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
☐ Yes ☒ No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
☐ Yes ☒ No 9. Is the application submitted as a result of a Violation? NOV # _____
☐ Yes ☒ No 10. Is the application submitted as a result of other laws or regulations or policies?
Explain: _____
☐ Yes ☒ No 11. Does the application affect the surface landowner or change the post mining land use?
☐ Yes ☒ No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
☐ Yes ☒ No 13. Does the application require or include collection and reporting of any baseline information?
☐ Yes ☒ No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
☐ Yes ☒ No 15. Does the application require or include soil removal, storage or placement?
☐ Yes ☒ No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
☒ Yes ☐ No 17. Does the application require or include construction, modification, or removal of surface facilities?
☒ Yes ☐ No 18. Does the application require or include water monitoring, sediment or drainage control measures?
☒ Yes ☐ No 19. Does the application require or include certified designs, maps or calculation?
☐ Yes ☒ No 20. Does the application require or include subsidence control or monitoring?
☐ Yes ☒ No 21. Have reclamation costs for bonding been provided?
☐ Yes ☒ No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
☐ Yes ☒ No 23. Does the application affect permits issued by other agencies or permits issued to other entities?
☐ Yes ☒ No 24. Does the application include confidential information and is it clearly marked and separated in the plan?

Please attach three (3) review copies of the application. If the mine is on or adjacent to Forest Service land please submit four (4) copies, thank you. (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Garth Nielsen	General Manager	07/13/2012	Garth Nielsen
Print Name	Position	Date	Signature (Right-click above choose certify then have notary sign below)

Subscribed and sworn to before me this 13 day of July, 2013

Notary Public: Josephine Otterstrom, state of Utah.

My commission Expires: 9.21.13.
Commission Number: 580490.
Address: 80 East Main
City: Price State: Ut Zip: 84501

JOSEPHINE OTTERSTROM
NOTARY PUBLIC-STATE OF UTAH
COMMISSION# 580490
COMM. EXP. 09-21-2013

For Office Use Only:	Assigned Tracking Number:	Received by Oil, Gas & Mining
		RECEIVED JUL 16 2012 DIV. OF OIL, GAS & MINING

Form DOGM- C1 (Revised December 10, 2007)

APPLICATION FOR COAL PERMIT PROCESSING
Detailed Schedule Of Changes to the Mining And Reclamation Plan

Permittee: Savage Services Corporation
Mine: Savage Coal Terminal **Permit Number:** C/007/0022
Title: Addition of Ground Water Monitoring Well

Provide a detailed listing of all changes to the Mining and Reclamation Plan, which is required as a result of this proposed permit application. Individually list all maps and drawings that are added, replaced, or removed from the plan. Include changes to the table of contents, section of the plan, or other information as needed to specifically locate, identify and revise the existing Mining and Reclamation Plan. Include page, section and drawing number as part of the description.

			DESCRIPTION OF MAP, TEXT, OR MATERIAL TO BE CHANGED
☐ Add	☒ Replace	☐ Remove	Chapter 7 - Pages 91, 92, 93, 134 and 135.
☐ Add	☒ Replace	☐ Remove	Appendix 7-3 - Page 5.
☐ Add	☒ Replace	☐ Remove	Plate 7-1.
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Any other specific or special instruction required for insertion of this proposal into the Mining and Reclamation Plan.

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731.112. For the purposes of SURFACE COAL MINING AND RECLAMATION ACTIVITIES ground-water quantity will be protected by handling earth materials and runoff in a manner that will restore approximate premining recharge capacity of the reclaimed area as a whole, excluding coal mine waste disposal areas and fills, so as to allow the movement of water to the ground-water system.

731.120. Surface-Water Protection. In order to protect the hydrologic balance, coal mining and reclamation operations will be conducted according to the plan approved under R645-301-731 and the following:

731.121. Surface-water quality will be protected by handling earth materials, ground-water discharges and runoff in a manner that minimizes the formation of acidic or toxic drainage; prevents, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow outside the permit area; and, otherwise prevent water pollution. If drainage control, restabilization and revegetation of disturbed areas, diversion of runoff, mulching or other reclamation and remedial practices are not adequate to meet the requirements of R645-301-731.100 through R645-301-731.522, R645-301-731.800 and R645-301-751, the operator will use and maintain the necessary water treatment facilities or water quality controls; and

731.122. Surface-water quantity and flow rates will be protected by handling earth materials and runoff in accordance with the steps outlined in the plan approved under R645-301-731.

731.200. There are presently 2 surface water monitoring points and 4 groundwater monitoring stations at the Savage Coal Terminal. One monitoring well (S-1-GW) had not provided any information; so 2 additional holes were drilled in June 2012. Both holes were dry; however, one was developed as a new well (S-3-GW). S-1-GW will also remain and continue to be monitored. The following is a list of existing water monitoring stations, along with sample frequency:

WATER MONITORING PROGRAM

Station	Location	Type	Frequency	Flow Device	Results To	Remarks
CV-1-W	Pumphouse	French Drain	Bi-annually	Time/Volume or Depth	DOGM	Sample during 2nd and 4th Quarters.
CV-14-W	N.E. Corner Property	Ditch	Bi-annually	Time/Volume	DOGM	Sample during 2nd and 4th Quarters.
CV-15-W	Sediment Pond Discharge	Pond Outlet	Monthly	Hand-Held Time/Volume	E.P.A., DOGM, Utah Health Dept.	Monitored per UPDES Permit
S-1-GW	South of French Drain	Ground Water Monitoring Well	Bi-annually	Grab Sample Depth	DOGM	Quarterly - 2 years Bi-Annual - After
S-2-GW	South of Pond 5	Ground Water Monitoring Well	Bi-annually	Grab Sample Depth	DOGM	Quarterly - 2 years Bi-Annual - After
S-3-GW	East of Pumphouse	Ground Water Monitoring Well	Quarterly	Grab Sample Depth	DOGM	Quarterly - 2 years Bi-Annual - After

Note: In addition to the above regular water monitoring schedule, baseline sampling will be completed on all stations at least once each 5 years. Baseline samples were taken in the 4th Quarter of 2009 and are scheduled to be taken again in the 4th Quarter of 2013. Baseline samples are analyzed per the parameter list on Table 7-17.

Water monitoring will include parameters on Table 7-17. Results will be submitted to the Division within 60 days following the end of each sampling cycle.

731.210. Ground-Water Monitoring. Ground-water monitoring will be conducted according to the plan approved under R645-301-731.200 and the following:

731.211. See 731.200 and Table 7-17.

731.212. Ground-water will be monitored and data will be submitted at least every six months for the French Drain and every quarter for the ground water monitoring wells S-1-GW and S-3-GW. Monitoring submittals will include analytical results from each sample taken during the approved reporting period. When the analysis of any ground-water sample indicates noncompliance with the permit conditions, then the operator will promptly notify the Division and immediately take the actions provided for in R645-300-145 and R645-301-731.

732.213. N/A - Not requested.

731.214. Groundwater monitoring will continue through operation; however, since the French Drain and monitoring wells will be removed during reclamation further monitoring of those sites will not be possible.

746.221 The refuse pile is considered active and still under construction (and/or removal as discussed in Chapter 5); therefore, slopes and diversions have not been revegetated at this time.

746.222 N/A - No impoundments are planned on the refuse pile.

746.300 N/A - No impounding structures are constructed of coal mine waste.

746.400 N/A - There are no plans to return coal processing waste abandoned underground workings.

747 Non-coal mine waste is collected, stored and disposed of as described in Section 528.330.

747.100 See Section 528.330.

747.200 See Section 528.330.

747.300 See Section 528.330.

748 All decommissioned water monitoring wells have been plugged and sealed as approved by the Division. Existing groundwater monitoring wells S-1-GW, S-2-GW and S-3-GW will be reclaimed when no longer required. The well pipe will be cut off at least 6" below existing ground level. The well pipe will then be backfilled with sand or other fine native material to within 12" of the top of the pipe. The upper 12" will then be filled with concrete and the site backfilled to existing ground level. The 2 remaining water monitoring wells, French Drain collection sump and river pump well are shallow, water systems. They will be reclaimed according to the approved plan as described here and in Section 540 of this permit.

750 All coal mining and reclamation operations will be conducted to minimize disturbance to the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area and support approved postmining land uses in accordance with the terms and conditions of the approved permit and the performance

standards of R645-301 and R645-302.

751 Discharges or water from areas disturbed by coal processing and reclamation operations will be made in compliance with all Utah and federal water quality laws and regulations and with effluent limitations for coal mining promulgated by the U.S. Environmental Protection Agency set forth in 40 CFR Part 434. (See approved UPDES Permit).

752 Sediment control measures are located, maintained, constructed and will be reclaimed according to plans and designs given under R645-301-312.240, R645-301-732, R645-301-742 and R645-301-760.

753 See Section 741.

754 See Section 528.

755 See Section 748.

760 Reclamation is discussed in Section 540 of this M.R.P.

761 Reclamation will be performed as per Sections 540 and 550

762 All roads will be removed and reclaimed during final reclamation.

763 Siltation structures will remain in place as described in Section 540, until removal by the Division.

764 See Section 540 for reclamation timetable.

765 See Section 540 and 748 for details on sealing of wells.

In 2009, 2 new ground monitoring wells were installed as required by the Division. These wells were designated S-1-GW and S-2-GW, and were placed near the northeast corner of the site and below (east) of the refuse pile respectively. A new well (S-3-GW) was added east of the pumphouse in June 2012. Although originally dry, it is hoped this well will provide some additional data in the future.

The measurements in the observation wells as recorded in Table 7-1 of Chapter 7 indicate that there is no regional ground water table at the site, although a perched water table exists at some locations on the site. The aerial extent of this perched water table could not be precisely determined from existing monitoring well network.

As previously mentioned, the original wells were monitored for 18 years at this site. When the wells were finally approved for removal, 5 of the 8 remaining wells had been dry for more than 5 years, 2 wells showed some ground water which appeared to be recharged by the irrigation canal south of the site. Water from one of these wells is also evident as ground water in Sediment Pond No. 5. The last remaining well was in an irrigated field east of the site, on land not controlled by Savage Services Corporation.

Of the 2 new wells installed in 2009, one remained dry and has been replaced. The other has provided consistent data.

When the facilities were first constructed in 1977 - 1978, ground water was present throughout the site, ranging in depths from 0' to 20' from the surface. A French Drain system was placed along the western and northern edge of the property to intercept a majority of the ground water, which appears to be recharged primarily by the irrigation

E 2,204,000 | E 2,204,500 | E 2,205,000 | E 2,205,500 | E 2,206,000 | E 2,206,500 | E 2,207,000 | E 2,207,500 | E 2,208,000 | E 2,208,500

N 439,000 | N 438,500 | N 438,000 | N 437,500 | N 437,000 | N 436,500 | N 436,000

TRANSFERRED TO CO-OP MINING CO. 0.24 ACRES

1/4 CORNER

E.W. STODDARD (RAILCO. LOADOUT)

UTAH POWER & LIGHT EASEMENT

PERMIT BOUNDARY

CV-14-W (SURFACE DITCH)

UNDERGROUND FRENCH DRAIN CV-1-W

6" WATER LINE FROM RIVER PUMP

RAILROAD RIGHT-OF-WAY

S-3-GW

UPDES DISCHARGE POINT CV-15-W

S-1-GW

RELOCATED DIVERSION UD-1

area

SETTLING PONDS

U.P.C., INC. (COVOL)

8" PIPE UNDERGROUND FRENCH DRAIN

UTAH POWER & LIGHT EASEMENT

TOPSOIL

SUB-SOIL

OFFICE

UNDERGROUND LINES

6" WATER LINE

SUBSTATION

14' DIA PIPE TUNNEL

TRUCK DUMP

PREP. PLANT

MCC

SHOP

COAL PILE

COAL STORAGE AREA

SAMPLER BUILDING

SAMPLE HOUSE

14' DIAMETER PIPE TUNNEL

FAN HOUSE AND ESCAPE TUNNEL

STOCKPILE AREA

4" DRAIN PIPE

MAIN LINE TRACK

ROY D. & PEGGY L. CAMPBELL

out

area

MATERIAL STORAGE/STOCKPILE AREA

MATERIAL STORAGE AREA

TOP SOIL

REFUSE AREA

GATE

PHONE BOX

JENSEN TRUCKING

JENSEN PROPERTY (DELETED FROM PERMIT AREA)

UNDISTURBED

LOOP TRACK

(24" CMP) RAILROAD CULVERT

1/4 CORNER

CASCADE MOUNTAIN RESOURCES, INC.

DAVID C. SWENSON

POND 1 | POND 2 | POND 3 | POND 5

PUMP HOUSE

WATER TRUCK FWD

TO POND 5

C-1 (12" CMP) | C-1A (24" CMP) | C-2 (18" CMP) | C-3 (24" CMP) | C-4 (18" CMP) | C-5 (24" CMP) | C-6 (18" CMP) | C-7 (24" CMP) | C-8 (18" CMP) | C-9 (18" STEEL) | C-10 (24" CMP) | C-11 (18" CMP) | C-12 (18" CMP) | C-13 (18" CMP) | C-13A (18" CMP) | C-13B (18" CMP) | C-15 (24" CMP) | C-19 (12" STEEL) | C-20 (12" STEEL) | C-21 (24" CMP) | C-23 (12" CMP) | C-24 (18" CMP) | C-25 (18" CMP) | C-25A (18" CMP) | C-26 (18" CMP) | C-27 (18" CMP) | C-28A (18" CMP) | C-29 (18" CMP)

CD-1 | CD-2 | CD-3 | CD-4 | CD-5 | CD-6 | CD-7 | CD-8 | CD-9 | CD-10 | CD-11 | CD-12 | CD-13

LEGEND:

- PERMIT BOUNDARY/BONDED AREA
- SURFACE DRAINAGE
- COLLECTION DITCH — CD-7 —
- CULVERT
- FENCE
- RAILROAD
- EXISTING UNDERGROUND DRAIN
- POWER POLE
- WATER MONITORING POINTS ★

CONTOUR INTERVAL: 2'

100' 50' 00 100' 200' 300'

REVISIONS:	
MAR. 2012	REV. 1

INTERMOUNTAIN AERIAL SURVEYS

TOPOGRAPHY COMPILED BY PHOTOGRAMMETRIC METHODS — 061006

DATE OF PHOTOGRAPHY: APRIL 28, 2006
CONTOUR INTERVAL 2'

RECEIVED
JUL 16 2012
DIV. OF OIL, GAS & MINING

STATE REGISTERED #154168 DAN W. GUY PROFESSIONAL ENGINEER

SAVAGE

SAVAGE COAL TERMINAL
WATER MONITORING LOCATION MAP

DRAWN BY:	SCALE:
BLACKHAWK ENGINEERING, INC.	AS SHOWN
DATE:	PLATE NUMBER:
JULY 2006	7-1